UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,639	08/20/2001	Raymond T. Hsu	010498	6691

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EXAMINER
DUONG, DUC T

ART UNIT	PAPER NUMBER
2619	

NOTIFICATION DATE	DELIVERY MODE
02/06/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
Office Action Summary	09/933,639	HSU, RAYMOND T.
	Examiner	Art Unit
	Duc T. Duong	2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _21 November 2007_.

2a)☐ This action is **FINAL**.　　2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-15_ is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-15_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

Claim Rejections - 35 USC § 101

1.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2.   Claims 5 and 6 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding to claims 5 and 6, the claims recited nothing but a communication signal which is of a form of energy, and as such is nonstatutory. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in § 101. Also, though claim 6 is direct to a method in the preamble, claim 6 appears to be a to be typing error and as such it is rejected for the same reason as claim 5 since it depend on claim 5.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4.   Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites the limitation "the method" in line 1 of the preamble. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ahmadvand et al (US Patent 6,542,490 B1) in view of Birdwell et al (US Patent

6,032,197).

Regarding to claims 1, 12, and 14, Ahmadvand discloses an apparatus 100 for

framing packets in wireless transmission system (fig. 1), the apparatus comprising

means 71 for generating a portion of an Internet Protocol (IP) packet 45 for transmission

(fig. 3-4 col. 7 lines 12-13), the portion of internet protocol (IP) packet is of one type (col.

7 lines 11-17; the IP packet is one of QoS type); means 73 for appending a start of

frame indicator 75 to the portion of the IP packet 45 (fig. 3-4 col. 7 lines 52-55); means

73 for applying an error checking 16b mechanism to the portion of the IP packet 45 (fig.

3-4 col. 8 lines 1-3); means 73 for preparing a frame 74 for transmission, having the

start of frame indicator 75, the portion of the IP packet 46, and the error checking

mechanism 16b (fig. 3-4 col. 7 lines 60-65) and not including an address and control

fields to identify a payload type (fig. 3-4 col. 8 lines 3-5); and means 73 for transmitting

the frame 77 without the address and control fields (fig. 3-4 col. 8 lines 3-5).

Ahmadvand fails to teach for framing and transmitting IP packet not including a

protocol field.

However, Birdwell discloses a broadcast transmission system for transmitting IP packets using compress header, wherein the protocol field of the packet is not used in the compressed header (fig. 5 col. 5 lines 59-65).

Thus, it would have been obvious to a person of ordinary skill in the art to employ such compress header as taught by Birdwell in Ahmadvand's system to improve transmission efficiency and conserve bandwidth.

Regarding to claim 5, Ahmadvand discloses a communication signal transmitted via a carrier wave, comprising a payload portion 46 corresponding to at least a portion of an Internet Protocol (IP) packet 45 of digital information and not including a protocol field to identify a payload portion (fig. 4 col. 7 lines 12-13); a start of frame portion 75 corresponding to the payload portion, and identifying a status of the payload to the portion within an IP packet 45 (fig. 4 col. 7 lines 52-55); an error checking portion 16b for verifying the payload portion (fig. 4 col. 8 lines 1-3).

Ahmadvand fails to teach for framing and transmitting IP packet not including a protocol field.

However, Birdwell discloses a broadcast transmission system for transmitting IP packets using compress header, wherein the protocol field of the packet is not used in the compressed header (fig. 5 col. 5 lines 59-65).

Thus, it would have been obvious to a person of ordinary skill in the art to employ such compress header as taught by Birdwell in Ahmadvand's system to improve transmission efficiency and conserve bandwidth.

Regarding to claims 7, 13, and 15, Ahmadvand discloses an apparatus 100 for framing packets in wireless transmission system (fig. 1), the apparatus comprising means 73 for receiving a frame 77 of a packet transmission, wherein the frame contains a payload portion of an Internet Protocol IP packet, and does not include a protocol field to identify a payload type (fig. 3-4 col. 8 lines 3-5), the frame 77 having a start of frame portion 75, a payload portion 46, and error checking portion 16b, the frame 77 not including protocol information (fig. 3-4 col. 8 lines 1-5; noted the frame 77 does not include the control field, and thus read on the frame without the protocol information); means 73 for identifying the frame 77 as a start frame 75 in the packet transmission (fig. 3-4 col. 7 lines 52-55); means 73 for verifying the frame 77 using the error checking portion 16b of the frame 77 (fig. 3-4 col. 8 lines 1-3); means 71 for processing the payload portion 46 of the frame 77 (fig. 3-4 col. 7 lines 12-13).

Ahmadvand fails to teach for framing and transmitting IP packet not including a protocol field.

However, Birdwell discloses a broadcast transmission system for transmitting IP packets using compress header, wherein the protocol field of the packet is not used in the compressed header (fig. 5 col. 5 lines 59-65).

Thus, it would have been obvious to a person of ordinary skill in the art to employ such compress header as taught by Birdwell in Ahmadvand's system to improve transmission efficiency and conserve bandwidth.

Regarding to claims 4 and 11, Ahmadvand discloses the error checking mechanism is a frame check sequence 16b (fig. 4 col. 8 lines 1-3).

Regarding to claims 2 and 8, Ahmadvand discloses the start of frame indicator 75 is a predetermined sequence of bits (fig. 4 col. 7 lines 52-55), and wherein if the payload portion 46 contains the predetermined sequence of bits, the payload portion further 46 includes a classifier (bit stuffing) to identify the predetermined sequence of bits in the payload (fig. 4 col. 7 lines 66-67 and col. 8 line 1; noted it is inherent in the HDLC protocol, bit stuffing ('0') is applied to the payload 46 if a predetermined sequence of bits (five consecutive '1') in the payload 46 match with the predetermined sequence of the flag 78).

Regarding to claims 3 and 9, Ahmadvand discloses the classifier correspond to an escape character (col. 7 lines 66-67 and col. 8 line 1; noted a bit '0' representation read on an escape character).

Regarding to claim 6, Ahmadvand discloses the start of frame portion 75 is a predetermined sequence of bits (fig. 4 col. 7 lines 52-55), and wherein if the payload portion 46 contains the predetermined sequence of bits, the payload portion further comprises a classifier portion (fig. 4 col. 7 lines 66-67 and col. 8 line 1; noted it is inherent in the HDLC protocol, if a predetermined sequence of bits (five consecutive '1') in the payload 46 match with a predetermined sequence in the flag 78, a bit stuffing (classifier or '0') is applied to the payload 46).

Regarding to claim 10, Ahmadvand discloses identifying the classifier in the payload 46, and processing the payload 46 without the classifier (fig. 4 col. 7 lines 66-67 and col. 8 line 1; noted it is inherent in the HDLC protocol, when processing a frame if a

'0' (classifier) is detected following a predetermined sequence of bits (five consecutive

'1') in the payload 46, the '0' (classifier) will be remove or discard).

Response to Arguments

7.   Applicant's arguments filed November 21, 2007 have been fully considered but

they are not persuasive. Regarding to applicant's argument on page 8, Birdwell fails to

teach for "not including a protocol field to identify a payload type". In response,

examiner respectfully traverses the assertion. First examiner indeed agreed with

applicant that in Birdwell the 16-bit protocol block 42 identifies the protocol format for

the header 40 (fig. 3-5 col. 4 lines 55-56). However, that 16-bit protocol block can have

different formats as suggested by Birdwell, such as TCP/IP, IPX/SPX, and NetBEUI

(col. 4 lines 42-53). And using these different format headers 42 the payload of the

packet will be constructed according to the protocol format of the header. Thus, the

protocol block 42 does indeed indicated the payload type of the packet. Furthermore,

examiner would like to point out that the 16-bit packet identification field in Birdwell is

not used to identify the payload type asserted by applicant, but rather to identify a

packet as fragmentation of a datagram or a new datagram. Also, the examiner would

like to direct applicant's attention to col. 5 lines 11-31. Herein, Birdwell discloses when

a header is compressed, only the 16-bit packet identification field, the 3-bit field, and the

13-bit fragment offset field is kept from packet to packet while the other fields such as

protocol field 42 or the protocol field in the IP header can be omitted. Noted these

protocol fields indicated the payload type of the packet or the packet format. Thus,

based on the reasons set forth here the rejections are maintained.

Conclusion

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Duong whose telephone number is 571-272-3122. The examiner can normally be reached on M-F (9:00 AM-6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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**WING CHAN
SUPERVISORY PATENT EXAMINER**